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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/090,574

03/05/2002

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7590

08/01/2006

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EXAMINER

SHEIKH, HUMERA N

ART UNIT

PAPER NUMBER

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/090,574
Filing Date: March 05, 2002
Appellant(s): LANDAU, STEVEN M.

Eric A. LaMorte
Registration No. 34,653
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed May 15, 2006 appealing from the Office action mailed 04/21/2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings, which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,456,351	JOHNSON	10-1995
6,527,109	SCHOO et al.	03-2003

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

- Claims 1-17 stand finally rejected under 35 U.S.C. §103(a) as being unpatentable over Johnson (U.S. Pat. No. 5,456,351).
- Claims 1-17 stand finally rejected under 35 U.S.C. §103(a) as being unpatentable over Schoo *et al.* (U.S. Pat. No. 6,527,109 B2).

This rejection is set forth in a prior Office Action mailed on 04/21/2005.

Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (US Pat. No. 5,456,351).

Johnson teaches a method and apparatus for supplying two-part systems that may be required to be separated until just prior to use and discloses methods for taking medication supplied in a dispenser carrying at least two constituent parts. The dispenser comprises a tapered cup adapted for containing a second constituent and provided with a substantially flat upper edge

or radial flange. The cup is closed by a lid removably secured to the cup's upper edge, the lid comprising two centrally separated layers receiving a first constituent (see reference column 1, lines 15-34); (col. 2, lines 5-14); Abstract and Claims. Johnson discloses that when the dispenser is used in pharmaceuticals, the first constituent (20) may comprise, for example, a solid medication, while the second may comprise a liquid, *i.e.*, water or a second medicine, which is to be taken in conjunction with the first. The first constituent may then either be consumed by the user followed by the consumption of the second constituent, or the two may be combined so as to react to produce an appropriate substance, which is then consumed (col. 5, lines 45-54).

Particular examples of combinations for which the dispenser may be suitably employed includes medications that need to be mixed together, mixed with a liquid or taken with a liquid are also suitable. For example, aspirin and water, contact lens and denture cleaning substances and solutions. The solutions may suitably comprise water with a solid substance contained in the lid portion of the dispenser, for example, wherein the solid is dissolved in water (or any other suitable liquid) for use (col. 6, lines 39-54).

Additionally, Johnson teaches that when employing the dispenser for delivery of medication, the cup may contain a liquid portion of medicine or water, for example, or when used in delivery of chemicals, may comprise a substance, which needs a catalyst or reactant in order to become active (col. 3, lines 37-41).

Johnson at column 1, lines 27-35, teaches that it is often desirable in pharmaceutical uses to have a portion of medicine separated from a second portion so as to preserve the shelf life of the medicine, when, for example, the medicine begins to break down once the two constituents

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are combined or when the combination begins a chemical reaction that results in slow decay of the resulting active substance.

Fig. 6 demonstrates an embodiment of the invention wherein the second constituent is liquid and the first constituent is a solid. The combined constituents may then be employed for their appropriate use (col. 5, lines 31-39).

The dispenser of Johnson comprises a two-part lid comprising a first constituent (*i.e.*, solid) separated from the second constituent (*i.e.*, liquid). Johnson does not teach a cap assembly.

However, it is the position of the Examiner that the two-part lid taught by Johnson is functionally equivalent in structure to the "cap assembly" of instant claims because the two-part lid functions to separate the first and second constituents from each other until just prior to use and similarly, the "cap assembly" instantly claimed also serves to contain the flow of fluid out of the fluid container and separate the liquid from the solid constituents. The prior art teaches a dispenser used in pharmaceutical applications for delivering medication whereby the first constituent is in solid form and separated from the second constituent, which is in liquid form, to assist in consumption of the first constituent solid medication (see claims). Hence, the instant invention is rendered *prima facie* obvious over the prior art of record.

(10) Response to Argument:

Claim 1

Appellant argues, “The Johnson patent discloses a lid for a container that can be peeled off the container. The lid has two halves that define a pocket. Within the pocket can be kept a secondary edible product. To use the device, the lid is partially needed open to remove the secondary edible product. The lid is then completely peeled away to expose the contents of the container (see Johnson, the method sequence represented by Fig. 2, Fig. 3 and Fig. 4 with accompanying description).

The Johnson patent does not disclose or suggest the step of providing a container having a cap assembly through which liquid from the beverage container is drunk. Rather, in the Johnson patent, the lid must be removed. Nothing is consumed through the lid.

The Johnson patent does not disclose or suggest the step of providing a cap assembly having at least one exterior surface that passes into a drinker’s mouth when liquid is drunk through the cap assembly. The Johnson lid must be removed from the container before anything can be drunk from the container.”

Appellant’s arguments have been considered but are not found persuasive. Johnson teaches a method and apparatus for supplying two-part systems that may be required to be separated until just prior to use and discloses methods for taking medication supplied in a dispenser carrying at least two constituent parts. The dispenser of Johnson comprises a two-part lid comprising a first constituent (*i.e.*, solid) separated from the second constituent (*i.e.*, liquid). Johnson does not teach a cap assembly and a cap assembly for a bottle, but rather teaches the use of a two-part lid comprising first and second constituents, which needs to be removed prior to

consumption. Appellant's argument that "Johnson's lid must be removed prior to consumption, whereas in the instant invention, liquid can be drunk through the cap assembly" is unpersuasive because the instant cap assembly claimed and the two-part lid taught by Johnson are functionally equivalent in structure and are employed for the same purpose. The two-part lid of Johnson functions to separate the first and second constituents from each other until just prior to use and similarly, the cap assembly instantly claimed also serves to contain the flow of fluid out of the fluid container and separate the liquid from the solid constituents. The prior art clearly teaches a dispenser used in pharmaceutical applications for delivering medication and teaches the same generic concept and objective of providing for a first constituent that is in solid form, separated from the second constituent, which is in liquid form, to assist in consumption of the first constituent solid medication (see claims of Johnson). No patentable distinction has been observed through the use of Appellant's cap assembly, which does not need to be removed prior to consumption of components versus Johnson's two-part lid structure, which requires removal prior to consumption of components. Moreover, Applicant's claim limitation of 'when said liquid is drunk through said cap assembly' is a future intended use limitation, which affords no patentable weight. The prior art desires an objective of separating first and second constituents that can be combined just prior to use, which is also an objective desired by Applicant's invention.

Appellant argues, "The Johnson patent does not disclose or suggest the step of forming a mass of a biologically beneficial compound on an exterior surface of the cap assembly. Rather, in the Johnson patent, a secondary object is merely held within a pocket inside the lid.

The Johnson patent does not disclose or suggest the step of having the mass of biologically beneficial compound pass into the mouth of a person drinking with the cap assembly. Rather, the Johnson patent clearly shows that the secondary object is completely removed from the lid before it is used.”

Appellant’s arguments are not persuasive. While a mass of beneficial compound is not explicitly taught disclosed as being on the exterior surface in Johnson, it is the position of the Examiner that Applicant’s have not demonstrated any unusual or unexpected results that accrue from the exterior surface having a mass of a biologically beneficial compound. The upper and lower lids are comprised of portions of paper-foil or paper-plastic material that can be removed to expose the solid or particulate material. The two-part systems taught by Johnson are structurally equivalent to the beverage container comprising a “cap assembly” with “exterior surface” as claimed herein. The two-part systems of Johnson separate the first and second constituents from each other until just prior to use. Additionally, Johnson teaches the same generic concept and objective of providing for a first constituent that is in solid and separated from the second constituent, which is in liquid form, to assist in consumption of the first constituent solid medication (see claims of Johnson). The dispenser of Johnson is also used particularly in pharmaceutical applications, whereby the first constituent (20) may comprise, for example, a solid medication, while the second may comprise a liquid, *i.e.*, water or a second medicine, which is to be taken in conjunction with the first. The first constituent may then either be consumed by the user followed by the consumption of the second constituent, or the two may be combined so as to react to produce an appropriate substance, which is then consumed (col. 5, lines 45-54). Johnson teaches particular examples of combinations where desired constituents

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may be used at column 6, lines 46-54. For example, the dispenser may be suitably employed for use in medications that need to be mixed together, mixed with a liquid or taken with a liquid are also suitable. Aspirin and water, contact lens and denture cleaning substances and solutions are especially suitable combinations. The solutions may suitably comprise water with a solid substance contained in the lid portion of the dispenser, for example, wherein the solid is dissolved in water (or any other suitable liquid) for use (see column 6, lines 39-54). Additionally, Johnson teaches that when employing the dispenser for delivery of medication, the cup may contain a liquid portion of medicine or water, for example, or when used in delivery of chemicals, may comprise a substance, which needs a catalyst or reactant in order to become active (col. 3, lines 37-41). Therefore, while a mass of beneficial compound is not disclosed on the exterior surface of the cap assembly, Johnson teaches that the solid substance to be consumed is contained in the lid portion of the dispenser. Thus, Johnson recognizes and teaches the same concept as Appellant of providing for a solid mass or substance that is consumed with simultaneously consuming a liquid substance. The prior art explicitly desires consumption of a solid material, such as pharmaceuticals, in combination with liquid constituents. Thus, no unexpected and/or superior results are attributed through Appellant's incorporation of a solid mass on the 'exterior' surface of the cap assembly versus the prior art's incorporation of a solid mass on the interior surface of the container.

Claim 12

Appellant argues, "Claim 12 sets forth a method similar to Claim 1. In the method of Claim 12, a bottle containing a consumable liquid is provided. A cap assembly for the bottle is

also provided. The cap assembly can be selectively opened and the consumable liquid drunk from the bottle through the cap assembly.

A consumable material is provided on an **exterior surface** of the cap assembly. The consumable material passes into the mouth when the liquid is drunk directly from the cap assembly.

The Johnson patent does not disclose or suggest the step of providing a bottle having a cap assembly through which liquid is drunk. Rather, in the Johnson patent, the lid must be removed. Nothing is consumed through the lid.

The Johnson patent does not disclose or suggest the step of providing a cap assembly having at least one exterior surface that passes into a drinker's mouth when liquid is drunk through the cap assembly. As has been stated, the Johnson lid must be removed from the container before anything can be drunk from the container.

The Johnson patent does not disclose or suggest the step of providing consumable material on an exterior surface of the cap assembly. Rather, in the Johnson patent a secondary object is merely held within a pocket inside the lid.

Lastly, the Johnson patent does not disclose or suggest the step of having the consumable material pass into the mouth of a person drinking from the beverage container through the cap assembly.”

Appellant's arguments are not persuasive. While Johnson may not disclose a bottle having a cap assembly through which liquid is drunk, whereby the cap assembly has an exterior surface comprising a consumable material, the two-part systems of Johnson are structurally as well as functionally equivalent to the beverage container recited by Appellant. The two-part

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systems disclosed by Johnson allow for effective methods for administering multiple constituents. Johnson explicitly teaches a method of taking medicine supplied in a dispenser carrying at least two constituent parts, whereby the first container part is provided in a lid having an interior chamber and a second constituent part provided in an open-top container (see Claim 15 in Johnson). Johnson further teaches a first constituent part comprising a medication and a second constituent part comprising a liquid to assist in consumption of the medication (see Claim 16). The prior art explicitly recognizes and teaches methods for administering solid and liquid components, such as also claimed by Appellant. Thus, the particular features relied on by Appellant (*i.e.*, cap assembly; exterior surface, etc.) do not establish a patentable distinction over the two-part systems and methods disclosed by Johnson, since the systems disclosed by the art are deemed structurally and functionally equivalent to the systems and methods claimed by Appellant.

Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schoo *et al.* (US Pat. No. 6,527,109 B2).

Schoo *et al.* teach a container cap for mounting on a liquid container with liquid-dissolvable additive, wherein the cap has a liquid-dissolvable disk in it that dissolves in the water when the bottle is shaken or inverted. The cap also has an annular cavity between inner and outer walls in the sidewall of the cap into which the liquid can flow through fluid passageways once the disk is at least partially dissolved. A liquid-dissolvable body is mounted within the chamber between the receiving end and the top end. At least part of the liquid-dissolvable body is in fluid communication with the chamber so that liquid from the liquid container that is poured

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into the chamber contacts the body and at least partially dissolves the body in the liquid. When the cap is mounted on a liquid container, such as by screwing it onto a conventional water bottle, the water in the bottle dissolves the liquid-dissolvable body, which can be any additive such as fluoride, vitamins, flavoring, etc. The water, thereafter containing the additive, can be consumed so as to conveniently gain the benefit of the additive (see reference column 1, lines 12-65) and Abstract.

Schoo *et al.* disclose that there is a liquid-dissolvable body, preferably the annular disk (labeled no. 30), rigidly mounted in the chamber (20) to block the fluid passageways. The disk (30) contains an additive that will eventually be completely dissolved in, and thereby incorporated into a liquid, such as water. The disk (30) can be made of a flavoring, coloring, vitamins, baby formula, water-purifying chemicals, nutrients, fluoride, electrolyte-affecting chemicals, or any other human-consumable additive that dissolves in a human-consumable liquid, such as water, milk, soft drinks, fruit juices, etc. (col. 3, lines 57-67). Preferably, the disk (30) is made entirely of the additive in a solidified form, so that after the disk (30) contacts the liquid and dissolves, there are no remnants of the disk. This complete dissolution of the disk (30) permits use of the invention with medications, with which accurate dosing is essential (col. 3, line 67 – col. 4, line 5).

In another embodiment of the invention, as shown in Fig. 8, a cap (110) has a cavity (118) formed between an inner wall (114) and an outer wall (116). The cavity (118) contains particulate (120) that dissolves in liquid when the liquid enters the cavity (118) through the radial fluid passageways (141-145). This embodiment could be used alone or in combination with a disk of liquid-dissolvable additive material (col. 5, lines 58-65).

Additionally, Schoo *et al.* disclose that it is known to combine one material with another to dissolve the first in the second and that it is conventionally known to place a liquid in a container and place a second material, whether liquid or particulate, in the lid for that container (col. 1, lines 12-27).

The prior art teaches a drinking apparatus similar to that of the instant invention, in which the drinking apparatus of Schoo *et al.* provides for the delivery of various compounds, such as vitamins, nutrients and medications. Thus, the instant invention as a whole is considered *prima facie* obvious to one of ordinary skill in the art.

(10) Response to Argument

Claim 1

Appellant argues, "The Schoo patent discloses a cap for a beverage bottle that has a liquid-dissolvable disk that is held within the structure of the cap. The disk dissolves in the beverage when the beverage bottle is shaken (See Abstract of Schoo patent).

As applied to the wording of pending Claim 1, the Schoo patent does not disclose or suggest the method step of forming a mass of a biologically beneficial compound on an exterior surface of the cap assembly. Rather, in the Schoo patent, a dissolvable disk is disposed on the interior of the cap and dissolves with the beverage when the beverage is shaken. This is directly opposite to the present invention that attempts to isolate the biologically beneficial material from the beverage until it is consumed.

Furthermore, the Schoo patent does not disclose or suggest the method step of having the mass of biologically beneficial compound pass into the mouth of a person drinking with the cap

assembly. Rather, the Schoo patent clearly shows that the dissolvable disk is inside the cap and does not have any direct contact with the drinker's mouth."

Appellant's arguments have been considered but are not found persuasive. Appellant's argument that the "Schoo patent does not disclose or suggest the method step of forming a mass of a biologically beneficial compound on an exterior surface of the cap assembly" is not persuasive since the container cap with liquid dissolvable additive of Schoo is structurally equivalent to the beverage container instantly claimed, albeit the particulate or additive being on the interior surface of the cap. Appellant's argument that the 'Schoo patent is directly opposite to the present invention that attempts to isolate the biologically beneficial material from the beverage until it is consumed" is not persuasive since the Schoo's container cap also provides a level of separation between the fluid and solid components. Only once the cap is mounted on a bottle or other container, is the liquid brought into contact with the dissolvable disk containing the additive. This is accomplished by simply shaking or inverting the closed bottle, either of which bring the liquid into contact with the disk, thereby causing it to dissolve (see column 5, lines 18-23). Thus, the disk remains isolated from the liquid until the cap is mounted on a bottle or container, which is then inverted or shaken. Schoo *et al.* also teach that the disk can be made of flavorings, coloring, vitamins, nutrients, fluoride, electrolyte-affecting chemicals or any other human-consumable additive that dissolves in a human-consumable liquid, such as water, milk, soft drinks, fruit juices, etc. (see col. 3, lines 57-67) & (Claim 14). Schoo *et al.* teach that preferably, the disk (30) is made entirely of the additive in a solidified form, so that after the disk (30) contacts the liquid and dissolves, there are no remnants of the disk. This complete dissolution of the disk (30) permits use of the invention with medications, with which accurate

dosing is essential (see col. 3, line 67 – col. 4, line 5). Thus, the prior art vividly recognizes and teaches isolation of solid constituents from liquid constituents until prior to consumption and also teaches administration of medications, vitamins, nutrients and the like through the use of the container cap with liquid-dissolvable disk.

Appellant's argument that the "Schoo patent does not disclose or suggest the method step of having the mass of biologically beneficial compound pass into the mouth of a person drinking with the cap assembly" and that the "Schoo patent clearly shows that the dissolvable disk is inside the cap and does not have any direct contact with the drinker's mouth" is not persuasive since the limitation of 'consumable material passes into the mouth when said consumable liquid is drunk through the cap assembly' is deemed a future-intended use limitation, which without structural limitation, affords no patentable weight to the claims. The Schoo *et al.* patent clearly discloses a container cap mechanism that is used to hold a solid or particulate substance, which is subsequently contacted with fluid for dissolution and consumption.

Claim 12

As applied to the wording of pending Claim 12, the Schoo patent does not disclose or suggest the method step of providing consumable material on an exterior surface of the cap assembly. Rather, in the Schoo patent, a dissolvable disk is disposed on the interior of the cap and dissolves with the beverage when the beverage is shaken.

Furthermore, the Schoo patent does not disclose or suggest the method step of having the consumable material pass into the mouth of a person drinking from the beverage container

through the cap assembly. Rather, the Schoo patent clearly shows that the dissolvable disk is inside the cap and does not have any direct contact with the drinker's mouth."

Appellant's arguments are not found persuasive. As delineated above, while Schoo *et al.* teach a consumable material on the 'interior' of the cap rather than on the 'exterior' surface as claimed, it remains the position of the Examiner that the container cap of Schoo *et al.* is structurally and functionally equivalent to that of the beverage container system claimed. Thus, the particular features of the beverage container claimed by Appellant's does not establish a significant distinction over the container cap of Schoo *et al.*, since there exists structural equivalence between the two. The Schoo *et al.* container cap with liquid-dissolvable additive teaches the same concept of administering pharmaceuticals, vitamins, nutrients, etc. by combining solid and liquid constituents just prior to consumption.

Appellant's argument that the "Schoo patent does not disclose or suggest the method step of having the mass of biologically beneficial compound pass into the mouth of a person drinking from the beverage container through the cap assembly" and that the "Schoo patent clearly shows that the dissolvable disk is inside the cap and does not have any direct contact with the drinker's mouth" is not persuasive since this limitation is a future-intended use limitation, which affords no patentable weight to the claims. The prior art teaches the same objectives desired by Appellant, which is administration of medicaments, vitamins, etc., whereby the solid components are dissolved and consumed upon mixing with liquid or fluid constituents. Thus, the drinking apparatus and methods of administering solid, particulate components taught by Schoo *et al.* clearly meet the limitations recited by Appellant.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Humera N. Sheikh – Art Unit 1615



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July 20, 2006

Conferees:

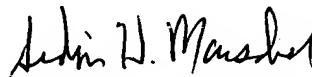
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